

What is claimed is;

1. An image display system comprising
an image data obtaining means which obtains image data
consisting of three-dimensional pixel values representing an
object,
a cross section designating means for designating an
arbitrary cross section of the object,
a depth designating means for designating a depth
perpendicular to the designated cross section,
10 a cross-section projected-image data generating means
which generates, on the basis of the image data, cross-section
projected-image data representing a cross-section
projected-image obtained by projecting, onto a plane parallel
to the designated cross section, averages of the pixel values
15 arranged in the directions of depth in the region defined by
the designated cross section and the designated depth
including the designated cross section,
an image processing condition setting means which sets
image processing conditions on the basis of the designated
20 depth,
an image processing means which carries out image
processing on the cross-section projected-image data on the
basis of the image processing conditions set by the image
processing condition setting means, and
25 a display means which displays an image on the basis of
the cross-section projected-image data processed by the image

processing means.

2. An image display system as defined in Claim 1 in which said image processing condition setting means sets the image processing conditions on the basis of the kind of the object
5 represented by the image data.

3. An image display system as defined in Claim 2 in which said image processing condition setting means sets the image processing conditions also on the basis of the purpose of observation of the cross-section projected-image.

10 4. An image display system as defined in Claim 3 in which the image data is three-dimensional CT data.

5. An image display system as defined in Claim 2 in which the image data is three-dimensional CT data.

15 6. An image display system as defined in Claim 1 in which said image processing condition setting means sets the image processing conditions on the basis of the purpose of observation of the cross-section projected-image.

7. An image display system as defined in Claim 6 in which the image data is three-dimensional CT data.

20 8. An image display system as defined in Claim 1 in which the image data is three-dimensional CT data.

9. An image display system as defined in Claim 1 in which the image data represents a medical image.

25 10. An image display system as defined in Claim 1 in which the image processing includes at least one of gradation processing for adjusting the density level or contrast of the

image and frequency processing for enhancing components in a particular frequency band.

11. An image display system comprising
an image data obtaining means which obtains image data
5 consisting of three-dimensional pixel values representing an object,

a cross section designating means for designating an arbitrary cross section of the object,

10 a depth designating means for designating a depth perpendicular to the designated cross section,

a cross-section projected-image data generating means which generates, on the basis of the image data, cross-section projected-image data representing a cross-section projected-image obtained by projecting, onto a plane parallel 15 to the designated cross section, averages of the pixel values arranged in the directions of depth in the region defined by the designated cross section and the designated depth including the designated cross section,

20 an image processing condition setting means which sets image processing conditions on the basis of analysis of the cross-section projected-image data,

25 an image processing means which carries out image processing on the cross-section projected-image data on the basis of the image processing conditions set by the image processing condition setting means, and

a display means which displays an image on the basis of

the cross-section projected-image data processed by the image processing means.

12. An image display system as defined in Claim 11 in which said image processing condition setting means sets the 5 image processing conditions on the basis of the kind of the object represented by the image data.

13. An image display system as defined in Claim 12 in which said image processing condition setting means sets the image processing conditions also on the basis of the purpose 10 of observation of the cross-section projected-image.

14. An image display system as defined in Claim 13 in which the image data is three-dimensional CT data.

15. An image display system as defined in Claim 12 in which the image data is three-dimensional CT data.

16. An image display system as defined in Claim 11 in which said image processing condition setting means sets the image processing conditions on the basis of the purpose of 15 observation of the cross-section projected-image.

17. An image display system as defined in Claim 16 in 20 which the image data is three-dimensional CT data.

18. An image display system as defined in Claim 11 in which the image data is three-dimensional CT data.

19. An image display system as defined in Claim 11 in which the image data represents a medical image.

20. An image display system as defined in Claim 11 in 25 which the image processing includes at least one of gradation

processing for adjusting the density level or contrast of the image and frequency processing for enhancing components in a particular frequency band.